Philips MasterColor®
Ceramic Metal Halide
3000K Tubular
Single-Ended T4 Lamps

Ideal for retail display lighting, and accent lighting

CDM/TC 3000K

A compact solution for retail displays

The Philips MasterColor® 3000K Tubular Single-Ended T4 lamp is a compact, energy efficient, ceramic metal halide lamp that provides crisp, sparkling light.

Excellent color
- 81–83 CRI (color rendering index)
- Color stability over life within ± 200K
- Lamp to lamp color consistency over life

Total cost of ownership benefits
- High lamp efficacy (up to 92 LPW)
- Energy-efficient alternative to incandescent/halogen
- Improved lumen maintenance over standard metal halide

Application versatility
- Universal operating position
- Compact lamp dimensions for high beam intensities

FadeBlock™
- Lamps feature integrated UV blocking medium for reduced fading of fabrics and paintings

PHILIPS
sense and simplicity

Philips MasterColor® Ceramic Metal Halide 3000K Tubular Single-Ended T4 Lamps

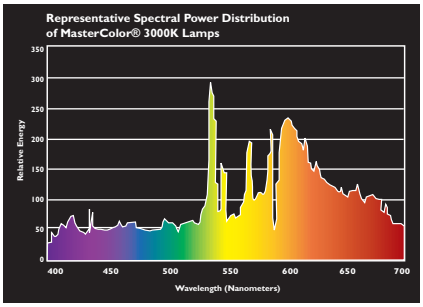
CDM/TC

Ordering Data

Product Number	Ordering Code	Pkg. Qty.	Nom. Watt.	ANSI Ballast Code	Approx. Initial Lumens[1]	Approx. Mean Lumens[2]	CRI
37372-0	CDM35/TC/830	12	39	M130/E	3300	2300	81
37373-8	CDM70/TC/830	12	70	M139/E	6400	4500	83

Electrical and Technical Data

Lamp Operating Voltage (rms)(Nominal)[3] —88 (39W)
—83 (70W)
Initial Lamp Voltage Range (rms)[4] —80-100
Lamp Operating
Current (Amps) Nominal (rms) —0.53 (39W)
—0.98 (70W)
Lamp Current Crest Factor (Maximum)—1.8
Warm-up to 80% Full Brightness —3 minutes
Restrike Time for Hot Lamps —4–8 minutes
Ballast Open Circuit Voltage —209 RMS Min.(39W)
—198 RMS Min.(70W)
Pulse Peak Volts —3000-4000
Pulse Width @ 90% Peak —2 Micro Sec. Minimum
Pulse Repetition Rate (Minimum)[5]—1 per Half Cycle
Minimum Operating Temp.— -30˚C (-22˚F)



Physical Characteristics

Bulb Size —T-4
Bulb Finish —Clear
Base —G-8.5 Bi-Pin
Max. Overall Length (MOL) —3.35" (85mm)
Light Center Length (LCL)—2.0" (52mm)
Arc Length —0.2" (5mm)(39W)
—0.28" (7mm)(70W)
Arc Tube Material —Polycrystalline Alumina
Max. Bulb Temp. —500°C (932°F)(39W)
—550˚C (1022˚F)(70W)
Max. Pinch Temp. —300°C (572°F)
Max. Arc Tube to Base Eccentricity—3°

Operating Characteristics

Rated Average Life, Hours.[6] —12,000
Correlated Color Temp. (CCT)[2] —3000K
CIE Chromaticity Approx.[2] —x-.432, y-.394 (39W)
—x-.434, y-.398 (70W)
Efficacy (lpw) —85 (39W)
—92 (70W)

Operating Position

Universal-Enclosed Luminaires Only

Note: Use on thermally protected electronic ballast only.

1) Measured at 100 hrs. life. Approximate lumen values listed are for vertical operation of the lamp.
2) Approximate lumen output at 40% of lamp rated average life.
3) Measured at rated lamp watts on a linear reactor. LPW does not include ballast losses.
4) Measured with the lamp operating at rated watts.
5) Option-Pulse Width @ 90% Peak, 1 micro second minimum with 2 pulses per half cycle.
6) Rated average life is the life obtained, on the average, from large representative groups of lamps in laboratory tests under controlled conditions at 10 or more operating hours per start. It is based on survival of at least 50% of the lamps and allows for individual lamps or groups of lamps to vary considerably from the average.

Above specifications subject to change without notice.

WARNINGS, CAUTIONS AND OPERATING INSTRUCTIONS for MasterColor® Ceramic Metal Halide Lamps: Single-Ended CDM-T G12, CDM-TCG8.5 (Universal); Double-Ended CDM-TD RX7 (Horizontal ± 45°, Enclosed Fixtures Only)

R**"WARNING:** These lamps can cause serious skin burn and eye inflammation from short wave ultraviolet radiation if outer envelope of the lamp is broken or punctured. Do not use where people will remain for more than a few minutes unless adequate shielding or other safety precautions are used. Certain lamps that will automatically extinguish when the outer envelope is broken or punctured are commercially available." This lamp complies with FDA radiation performance standard 21 CFR subchapter J. (USA:21CFR 1040.30 Canada:SOR/DORS/80-381)

If the outer bulb is broken or punctured, turn off at once and replace the lamp to avoid possible injury from hazardous short wave ultraviolet radiation. Do not scratch the outer bulb or subject it to pressure as this could cause the outer bulb to crack or shatter. A partial vacuum in the outer bulb may cause glass to fly if the envelope is struck.

WARNING: The arc-tube of metal halide lamps are designed to operate under high pressure and at temperatures up to 1000° C and can unexpectedly rupture due to internal or external factors such as a ballast failure or misapplication If the arc-tube ruptures for any reason, the outer bulb may break and pieces of extremely hot glass might be discharged into the surrounding environment. If such a rupture were to happen, **THERE IS A RISK OF PERSONAL INJURY, PROPERTY DAMAGE, BURNS AND FIRE.**

Certain lamps that will retain all the glass particles should inner arc-tube rupture occur are commercially available from Philips Lighting Company.

RELAMP FIXTURES AT OR BEFORE THE END OF RATED LIFE. Allowing lamps to operate until they fail is not advised and may increase the possibility of inner arc tube rupture.

This lamp contains an arc tube with a filling gas containing less than 10 nCi of Kr-85 and is distributed by Philips Lighting Company, a division of Philips Electronics North America Corporation, Somerset, New Jersey, 08875.

CAUTION: TO REDUCE THE RISK OF PERSONAL INJURY, PROPERTY DAMAGE, BURNS AND FIRE RESULTING FROM AN ARC-TUBE RUPTURE THE FOLLOWING **LAMP OPERATING INSTRUCTIONS** MUST BE FOLLOWED:

LAMP OPERATING INSTRUCTIONS:

1. RELAMP FIXTURES AT OR BEFORE THE END OF RATED LIFE. Allowing lamps to operate until they fail is not advised and may increase the possibility of inner arc tube rupture.
2. Use only in fully enclosed fixtures capable of withstanding particles of glass having temperatures up to 1000° C. Lens/diffuser material must be heat resistant. Consult fixture manufacturer regarding the suitability of the fixture for this lamp.
3. Do not operate a fixture with a missing or broken lens/diffuser.
4. Operate lamp only within specified limits of operating position.
5. Before lamp installation/replacement, shut power off and allow lamp and fixture to cool to avoid electrical shock and potential burn hazards.
6. Use only auxiliary equipment meeting Philips and/or ANSI standards. Use within voltage limits recommended by ballast manufacturer.
   A. Operate lamp only within specified limits of operation.
   B. For total supply load refer to ballast manufacturers electrical data.
   C. Operate CDM-T (G12 base) lamps only on thermally protected ballasts.
   D. Operate CDM-TC lamps (G8.5 base)only on thermally protected electronic ballasts
   E. Operate CDM-T (G12 base) 39W/842 lamps only on thermallly protected electronic ballasts
7. Periodically inspect the outer envelope. Replace any lamps that show scratches, cracks or damage.
8. If a lamp bulb support is used, be sure to insulate the support electrically to avoid possible decomposition of the bulb glass.
9. Protect lamp base, socket and wiring against moisture, corrosive atmospheres and excessive heat.
10. Time should be allowed for lamps to stabilize in color when turned on for the first time. This may require several hours of operation, with more than one start. Lamp color is also subject to change under conditions of excess vibration or shock and color appearance may vary between individual lamps.
11. Lamps may require 4 to 8 minutes to re-light if there is a power interruption.
12. Take care in handling and disposing of lamps. If an arc tube is broken, avoid skin contact with any of the contents or fragments.

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